Central Indiana November 2016 Climate Summary

8th Warmest on record at Indianapolis

65th Driest on record at Indianapolis

Temperatures

November began unseasonably warm with highs in the upper 70s and lower 80s on the 1st and 2nd. The high of 79 in Indianapolis on the 1st was only the 3rd day in recorded history with a temperature of 79 or warmer in November. Temperatures cooled slightly with the passage of a cold front late on the 2nd, but remained above normal through most of the first week of the month with highs in the 60s and lows largely in the 40s.

The passage of another front brought another drop in temperatures beginning on the 8th and continuing into the middle of the month. Temperatures fell closer to near seasonable levels but remained slightly above normal overall with highs in the 50s. With mainly dry weather and light winds at night, central Indiana finally experienced widespread frost and the first hard freeze of the season with lows falling into the middle 20s in most areas on the mornings of the 12th and 13th. Yet another surge of late season warmth commenced on the 15th and continued through the 18th with highs peaking in the mid and upper 70s on the 17th and 18th. The high of 75 in Indianapolis on the 18th marked the warmest temperature so late in the year since the high of 75 on November 20, 1942.

The passage of a strong cold front on the evening of the 18th brought an abrupt end to the unseasonably warm weather, with the coldest weather of the month for the following several days through much of Thanksgiving week. Highs remained below 50 degrees for most areas through the 26th, with even some areas holding in the upper 30s on a few of the days. Lows fell into the lower and mid 20s for several mornings. A return to

southerly flow brought milder temperatures for the last few days of the month, highlighted by highs in the lower 60s across much of central Indiana on the 29th.

| Site | November 2016 | November | Highest | Lowest |
|-------------------|---------------|-------------|---------------|-----------------|
| | Avg Temp | 2016 | Temperature | Temperature |
| | | Difference | | |
| | | from Normal | | |
| Indianapolis | 48.1 | +4.5 | 79 on 1 | 23 on 21 |
| Lafayette | 45.7 | +2.9 | 78 on 1 | 19 on 21 |
| Muncie | 48.3 | +5.7 | 80 on 1 and 2 | 25 on 12 and 22 |
| Terre Haute | 47.3 | +4.0 | 79 on 1 | 20 on 21 |
| Bloomington | 48.0 | +4.2 | 82 on 1 | 21 on 21 |
| Shelbyville | 47.9 | +4.2 | 82 on 1 | 24 on 21 |
| Indy – Eagle Crk. | 48.1 | +4.1 | 79 on 1 and 2 | 26 on 20 |

At Indianapolis, there were 23 days with above normal average temperatures, 6 days with below normal average temperatures and 1 day with normal average temperatures.

November 2016 was the 8th warmest in the Indianapolis area since 1871.

Precipitation

November rainfall was near normal to below normal for almost all of Indiana. Only a few locations in northern and west central Indiana received above normal precipitation during the month. The driest locations were in east central and southeast Indiana near the Ohio state border where several areas received less than 1.50 inches for the month. The wettest areas were in northwest Indiana where more than 5 inches fell in Porter County. Much of central Indiana received 2 to 4 inches.

Most of the rainfall during November fell on three days...the 18th, the 23rd and the 28th. Precipitation totaled 1 to 4 inches from the 18th through the 28th. Prior to the 18th, much of the state received less than one-half inch of rain. The largest rain event of the month occurred on the evening of the 2nd when storms dropped 2 to 4 inches of rain in isolated areas of northern Indiana.

Abnormally dry conditions that began in southern Indiana during October expanded in November. Abnormally dry to severe drought conditions developed by the 22nd in more than half of the state because of little rainfall. The driest area was in southern Indiana where moderate to severe drought conditions prevailed. Rainfall on the 23rd and 28th brought some relief to the drought conditions in the state.

No river flooding occurred in central and southern Indiana during November. Stream flow at the end of the month was normal to above normal in central and northern Indiana and below normal in small watersheds of southern Indiana.

| Site | November 2016 Precipitation | November 2016 Difference from Normal | Wettest Day | Longest Dry Stretch |
|-------------------|--------------------------------|--------------------------------------|-------------|------------------------|
| Indianapolis | 2.77 | -0.93 | 1.14 on 28 | 9 days 9-17 |
| Lafayette | 2.93 | -0.04 | 0.97 on 23 | 9 days 9-17 |
| Muncie | 2.49 | -0.96 | 0.91 on 18 | 9 days 9-17 |
| Terre Haute | 1.67 | -2.17 | 0.87 on 28 | 9 days 9-17 |
| Bloomington | 3.26 | -0.68 | 1.40 on 28 | 9 days 9-17 |
| Shelbyville | 2.29 | -1.44 | 0.92 on 28 | 8 days 10-17 |
| Indy – Eagle Crk. | 2.72 | -0.98 | 1.07 on 28 | 9 days 9-17 |

November 2016 was the 65th driest in the Indianapolis area since weather records began in 1871.

Severe Weather

The only severe weather event of the month occurred during the late afternoon and evening of the 18th as lines of thunderstorms developed along and ahead of a strong cold front. The storms produced wind damage and gusts up to 60 mph across much of the western half of central Indiana. More information on the storms can be found at http://www.weather.gov/ind/midnov2016warmsevere

For information on severe weather in other areas during November, visit the Storm Prediction Center "Severe Weather Event Summaries" website at http://www.spc.noaa.gov/climo/online/.

Miscellaneous

The maximum wind gust at Indianapolis International Airport was 43 mph out of the southwest during the evening of the 18th as a line of thunderstorms moved through the Indianapolis metro area. Fog or haze was reported at Indianapolis on 14 days during the month. Thunder occurred at Indianapolis on the 18th.

December 2016 Outlook

The official outlook for December 2016 from the Climate Prediction Center indicates equal chances of near, above or below normal temperatures, and for greater chances of above normal precipitation for central Indiana. At Indianapolis, the average temperature is 31.6°. The average precipitation for December at Indianapolis is 3.17", with 6.9" of snowfall.

Data prepared by the Indianapolis Forecast Office.